

What is claimed is:

1. An LCD device comprising:

a substrate;

5 a TFT having a gate electrode and source/drain electrodes on the substrate;

a passivation film formed on an entire surface of the substrate and having a contact hole in the drain electrode of the TFT; and

10 a pixel electrode made of an amorphous transparent conductive film and connected to the drain electrode through the contact hole.

15 2. The LCD device as claimed in claim 1, wherein the pixel electrode is formed of ITO in which H₂O is added.

3. The LCD device as claimed in claim 1, wherein the pixel electrode is formed of ITO in which H₂ is added.

20 4. The LCD device as claimed in claim 1, wherein the pixel electrode is formed of ITO produced at a predetermined temperature.

25 5. The LCD device as claimed in claim 1, wherein the pixel electrode is formed of any one of amorphous IZO and amorphous ITZO.

30 6. The LCD device as claimed in claim 1, wherein the pixel electrode has a thickness of approximately 500Å to 2000Å.

7. The LCD device as claimed in claim 1, wherein the pixel electrode is formed of a polycrystal transparent conductive film having a thickness of above 500Å to 2500Å.

5 8. A pad structure of an LCD device, comprising:
 a substrate;
 a metal film formed on the substrate; and
 an amorphous transparent conductive film formed on the metal film.

10 9. The pad structure as claimed in claim 8, wherein the amorphous transparent conductive film is formed of ITO in which H₂O is added.

15 10. The pad structure as claimed in claim 8, wherein the amorphous transparent conductive film is formed of ITO in which H₂ is added.

20 11. The pad structure as claimed in claim 8, wherein the amorphous transparent conductive film is formed of ITO produced at a predetermined temperature.

25 12. The pad structure as claimed in claim 8, wherein the amorphous transparent conductive film is formed of any one of amorphous IZO and amorphous ITZO.

30 13. The pad structure as claimed in claim 8, wherein the metal film is formed of a same material as a gate electrode.

 14. The pad structure as claimed in claim 8, wherein the metal film is formed of a same material as a data line.

15. The pad structure as claimed in claim 8, wherein the amorphous transparent conductive film has a thickness of approximately 500Å and 2000Å.

5 16. The pad structure as claimed in claim 8, wherein a polycrystal transparent conductive film having a thickness of above 500Å to 2500Å is formed instead of the amorphous transparent conductive film.

10 17. A method for manufacturing an LCD device, comprising the steps of:

forming a gate line including a gate electrode and a gate pad on a substrate;

15 forming a gate insulating film on an entire surface of the substrate;

forming a semiconductor film above the gate electrode;

20 forming a data line including a data pad to form source and drain electrodes of a TFT at both sides above the semiconductor film;

forming a passivation film on the entire surface of the substrate;

forming contact holes in the drain electrode, the gate pad and the data pad of the TFT; and

25 forming, in each pixel region, amorphous transparent conductive films connected to the drain electrode, the gate pad and the data pad through the contact holes.

30 18. The method as claimed in 17, wherein at least one of the amorphous transparent conductive films is formed of ITO in which H₂O is added.

19. The method as claimed in claim 17, wherein at least one of the amorphous transparent conductive films is formed of ITO in which H_2 is added.

5 20. The method as claimed in claim 17, wherein at least one of the amorphous transparent conductive films is formed of ITO produced at a predetermined temperature.

10 21. The method as claimed in claim 17, wherein at least one of the amorphous transparent conductive films is formed of any one of amorphous IZO and amorphous ITZO.

22. The method as claimed in claim 17, further comprising the step of:

15 performing a thermal process to at least one of the amorphous transparent conductive films at a temperature of around 150° to 350° .

20 23. The method as claimed in claim 17, wherein at least one of the amorphous transparent conductive films is formed at a thickness of approximately 500\AA to 2000\AA .

25 24. The method as claimed in claim 17, wherein a polycrystal transparent conductive film having a thickness of above 500\AA and 2500\AA is formed instead of at least one of the amorphous transparent conductive films.